

ABSTRACT OF THE DISCLOSURE

This invention relates to plant *GntI* sequences, in particular to plant nucleic acid sequences encoding the enzyme N-acetyl glucosaminyl transferase I (*GnTI*), DNA sequences derived therefrom, including *GntI* antisense and sense constructs, and the translation products thereof, antibodies directed against said translation products, as well as the use of the sequence information for the production of transformed microorganisms and transgenic plants, including those having reduced or missing N-acetyl glucosaminyl transferase I activity. Such plants displaying reduced or lacking N-acetyl glucosaminyl transferase I activity are of great importance for the production of glycoproteins of specific constitution with respect to their sugar residues.